DEPARTMENT OF HEALTH & HUMAN SERVICES Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

TB Notes
No. 1, 2011

Dear Colleague:

Despite the budget uncertainties that all U.S. government agencies are facing, CDC continues to carry out its important work. While we are pleased that the President's proposed budget for FY 2012 increases funding for most programs at the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), it proposes about a 1 percent reduction to funding for TB elimination. The proposed budget does provide CDC, as well as CDC's HIV, STD, TB, and viral hepatitis grantees, an option to transfer up to 5 percent of funds between programs to address syndemics among populations with, or at risk for, at least two or more of the above-mentioned infections. Funds may also be used by a program to enlist other programs in responding to acute needs. We will provide more information as it becomes available.

The March meeting of the Advisory Council for the Elimination of Tuberculosis (ACET) was cancelled. The next ACET meeting is scheduled for June here in Atlanta.

World TB Day was March 24. For 2011, CDC's World TB Day theme was *TB Elimination: Together We Can!* DTBE's World TB Day website is a rich source of information and materials for TB control programs and other partners to use in planning and carrying out their World TB Day activities. Please visit the website to see the variety of activities that were planned for this year. The website is http://www.cdc.gov/tb/events/WorldTBDay/default.htm.

As we have done in past years, DTBE hosted a World TB Day observance on March 24 at the Roybal Campus. The keynote speaker was Dr. Alan Hinman, Senior Public Health Scientist at the Task Force for Global Health and former Director of the Center for Prevention Services (precursor of our current center, NCHHSTP). Other invited speakers included Dr. Kevin DeCock, Director of CDC's Center for Global Health, and Dr. Bisrat Abraham, EIS officer in DTBE; I was on hand as well. Presentations focused on TB and HIV coinfection and the status of TB in the United States. We were pleased that Dr. Frieden's Grand Rounds session for March, "TB & HIV: A Deadly Duo," was held on the same day, preceding the observance. I hope that DTBE and other CDC staff were able to attend both the Grand Rounds session as well as the World TB Day observance.

DTBE worked with a variety of partners to plan and host the 5th Annual TB Awareness Walk, which was held on Saturday, March 19. The walk is held in connection with World TB Day, March 24, to educate the public and raise awareness about TB. The event,

a 2-mile walk around the perimeter of Atlanta's Grant Park, was a great success – organizers estimate that over 800 people participated this year.

Also in commemoration of World TB Day, the March issue of the journal *Emerging Infectious Diseases* has a TB theme. If you have not yet seen this issue, I hope you will take a few moments to do so; the journal is at http://www.cdc.gov/ncidod/EID/index.htm

We are very encouraged by the results of TB Trials Consortium Study 26. Called the "PREVENT TB Study: 3 Months of Once-weekly Rifapentine + INH vs. 9 Months of Daily INH for Treatment of Latent TB Infection," this regimen has the potential to provide the shortest preventive therapy regimen yet. This study is likely to change the way we treat latent TB infection. New guidelines are expected to be released in the next few months.

Please note that two of the branches in DTBE have recently undergone name changes. The branch formerly known as the Clinical and Health Systems Research Branch (CHSRB) will now be called the Clinical Research Branch (CRB), reflecting the branch's current responsibilities. In addition, the former Mycobacteriology Laboratory Branch (MLB) will henceforth be named simply the Laboratory Branch (LB). We have an item in this issue from the LB with the rationale for their name change.

In early February, I sent out information to state TB control programs about the availability of laboratory testing for the molecular detection of drug resistance (MDDR). To reiterate, we recommend that laboratories continue to ensure that conventional drug susceptibility testing be performed along with molecular testing. Rapid molecular tests should be used to supplement, but not replace, culture and conventional drug susceptibility testing. Since September 2009, DTBE's Laboratory Branch has offered the MDDR service for rapid DNA sequence analysis of isolates known or suspected of drug resistance. The MDDR service is available at no cost to public health laboratories as both a primary means of detecting drug resistance and as a secondary confirmation for labs performing in-house assays.

We are making preparations for the 2011 National TB Conference, to be held June 15–17 in Atlanta. The conference will be preceded with special meetings on Monday and Tuesday, June 13 and 14, and will be followed by meetings on Friday afternoon, June 17. Invited participants for the conference include state and big city TB Controllers, TB Nurse Consultants, TB Program Managers, DTBE field staff, TB laboratory staff, the National Society of TB Clinicians, and Regional Training and Medical Consultation Center (RTMCC) leadership. Please register for the 2011 National TB Conference at either http://tbcontrollers.org/ or http://www.cdc.gov/tb/. The conference is listed under Events on both sites. The theme for the National TB Conference is "*TB Control: Facing Challenges – Discovering Solutions*." As usual, breakout sessions will be included to enhance discussions and allow participants to share their program experiences and successes. This meeting is an important forum that brings state, local, territorial, and other TB control professionals together with colleagues from CDC to discuss a wide array of medical, technical, and programmatic TB issues.

The Association of Public Health Laboratories (APHL) is holding its 7th National Conference on Laboratory Aspects of TB June 13-15, in conjunction with the National TB Conference. For additional information about this conference, please visit the APHL website http://www.aphl.org/profdev/conferences/tb7/pages/default.aspx.

I hope you are able to attend one of these important meetings!

Kenneth G. Castro, MD
Assistant Surgeon General, USPHS, &
Commanding Flag Officer
CDC/ATSDR Commissioned Corps
Director, Division of Tuberculosis Elimination
National Center for HIV/AIDS, Viral Hepatitis,
STD, and TB Prevention

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Centers for Disease Control and Prevention
Atlanta, Georgia 30333
Division of Tuberculosis Elimination ♦
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

No. 1, 2011

HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

New Englanders Eliminating TB: Nurse and Laboratorian Honored with Third Annual New England TB Heroes Awards

The New England TB Heroes Awards were presented in September 2010 at the Northeast TB Controllers Conference. Each year, requests for nomination are circulated through the New England states of individuals who have made exemplary contributions to the care of patients with TB or who have been instrumental in enhancing TB prevention and control efforts. Eighteen nominations were received, and two outstanding nominees were selected from this pool.

At the conference's plenary session in Annapolis, MD, the award recipients were announced to great applause. The awardees appeared grateful and appreciative as they came onstage to receive their plaques.

The first recipient was Alexander Sloutsky, PhD, director of the Massachusetts Supranational TB Reference Laboratory (MSRL) and assistant professor of medicine at the University of Massachusetts Medical School. Dr. Sloutsky has led international collaborations that now enable some countries with high TB rates to detect drug-resistant TB at the local level. Under his direction, the MSRL, which is part of an international network of 28 supranational reference laboratories, collaborates with the World Health Organization (WHO) to provide support and guidance for TB laboratories in Peru, Haiti, the Caribbean, and other areas with a high burden of TB.

Alex was nominated for the TB Hero Award by the Medical Advisory Committee for the Elimination of Tuberculosis in Massachusetts, which described him as a "true leader and innovator, constantly working to improve existing laboratory methods, to bring in entirely new state-of-the-art methodologies, and to develop his own novel TB diagnostics platforms." Citing Sloutsky's international leadership in clinical mycobacteriology, the nomination commended him for "functioning in an advisory capacity to bodies like the WHO and bringing his expertise to resource-limited settings to help with mycobacteriology laboratory set-up and management. His work has truly made a huge impact on the care of TB patients at multiple levels." The University of Massachusetts Medical School newsletter *UMass Now* reported on the award and recognized Dr. Sloutsky's many contributions to TB control.

Alex Sloutsky with Sue Etkind (Massachusetts), Jill Fournier (New Hampshire), and Mark Lobato (CDC)

The second recipient was Jeanne Ellis, RN, nurse at the Getchell-Ward TB Clinic located in Worcester, MA (population 783,000). One of Jeanne's nominators commented that

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Visit DTBE's Internet home page,
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resources available from DTBE.

"On a functional basis, Jeanne has been the heart and soul of the Worcester TB Clinic for more years than she is likely willing to admit! I believe she has seen every single patient with active TB in Worcester for the last 30 years. She has been an exemplary model for the delivery of care to an impoverished, ethnically diverse, multilingual patient population."

Jeanne Ellis with Sue Etkind, Jill Fournier, and Mark Lobato

Ellis's colleagues recognize her as a tremendous asset, both for clinic activities as well as training future TB practitioners. One of the clinic doctors shared that "When I first met Dr. Ward [then head of the TB Clinic] in 1990, he explained to me that the clinic functions extremely well because of his excellent nurse, Jeanne Ellis, and she could guide me and teach me everything I needed to know and more. Jeanne directs the clinic and its staff to make sure every provider is well-informed and every patient has the best possible care."

Congratulations to Jeanne Ellis and Alexander Sloutsky! On behalf of the New England TB Consortium, we thank them for their outstanding efforts.

—Reported by Nickolette Patrick (TB Educator, Global TB Institute); Sue Etkind, RN, MS (Director, Massachusetts Division of TB Prevention and Control); Jill Fournier, RN, BSN (Program Manager, New Hampshire TB Program); Lynn Sosa, MD (Connecticut TB medical epidemiologist); Mark Lobato, MD (CDC medical officer)

Regionalization: A Strategic Partnership between DTBE and State TB Programs

The six New England states collaborate through the New England TB Consortium (NETBC), in partnership with DTBE and the NJ Medical School Global Tuberculosis Institute, focusing on joint programmatic activities, education, and operational research. This strategic step is in response to recommendations by the Institute of Medicine and the Advisory Council for the Elimination of Tuberculosis that CDC develop models to foster regional collaboration between state programs and DTBE.[1,2]

In addition, the 2010 Tuberculosis Elimination Plan for the United States prominently features regionalization as a proactive method to maintain and enhance TB expertise and programmatic infrastructure and to promote efficiencies through collaborations. The TB Elimination Plan derives one lesson from the regionalization experience

affirming that TB control "…within each state can be enhanced when tuberculosis program staff collaborate in a multistate regional tuberculosis elimination effort."[3]

The experience in New England demonstrates that regional partnerships are productive and desirable. Some examples from the NETBC enhancement collaborations follow and are further described at the New England TB Consortium website

Development of a Leadership Team
The leadership of each state TB program, including the program manager and key staff, comprise a coordinating team for the New England TB Consortium. This team guides regional activities and sets priorities for initiating new projects. The team also provides collective problem solving to state and regional concerns. Without the buy in, commitment, and participation of the individual programs, collaboration would be reduced to communication without the *shared purpose* that regionalization entails.

Creating an Infrastructure and a Plan
Relying on voluntary participation, each program contributes to various aspects of the regional collaboration. The consensus strategic plan serves as the framework for collaboration. Joint activities are discussed, organized, and implemented through work teams composed of members from the programs. These efforts have evolved into a more formal structure, the NETBC. A retreat in May 2009 reconfirmed the programs' commitment and reached consensus on a new plan for 2010–2014 (see Resources about Regional Collaboration).

Education
Regionalization's first impact was to expand the expertise available to each program. Education of public health nurses and community providers along with workforce development have been a top priority. Having a health educator from the Global TB Institute based in the region is an immense benefit.

Educational initiatives in 2010 include four web-based case presentations to almost 300 health-care professionals through "Eliminating TB Case by Case" for providers and "TB Talk," a discussion forum led by and for nurses, case managers, and outreach staff. In collaboration with the Global TB Institute, a regional outreach conference, a TB Clinician's Conference, and state-specific educational conferences were supported and attended by other states, and a website with archived educational materials was developed. In addition, a project of the Massachusetts' medical advisory committee resulted in posters for the Emergency Department that were shared with all programs.

Universal Genotyping
An exciting development is the discussion of shared genotypic clusters in the region. After a start up period of sharing how each program collects and organizes genotyping data, the genotyping team and NETBC leadership have discussed clusters with the goal of 1) defining the strains that are in the region, 2) learning about cluster investigations from one another, and 3) determining if there has been intra-state and inter-state TB transmission. To date, limited interstate transmission has been found within a family and in one outbreak. Programs continue to evaluate shared contacts between states in instances where the contact may live and work in a different state or the contact and source case live in different states. The most recent calls related to cluster investigations have included New York State and New York City. Latest steps included working with DTBE on testing TB-GIMS in a low-incidence state and studying predictors for clustering in Connecticut.

Outbreak and Case Management Consultation
An immediate advantage of having a DTBE staff person on the regional team is access to consultation for TB outbreaks, large contact investigations, and case management. By having someone on the ground, DTBE was able to respond early to a community-wide outbreak with nine cases after an inmate whose TB went

undiagnosed was released from prison. Another state benefited from technical support from a DTBE team when they had three simultaneous high-volume (school and work places), highly visible investigations. New Hampshire is currently working with DTBE on linking its LTBI database to TB databases to evaluate CDC's LinksPlus software and to determine if additional risk factors can be identified for developing active disease.

Public Health Law
A new development is the New England Public Health Law Project. The NETBC has partnered with the Harvard JD/MPH program to review the laws pertaining to involuntary isolation of TB patients. The goal is to expand the role of the TB Treatment Unit at Lemuel Shattuck Hospital in Boston as a regional TB referral center. The NETBC is working on such an Agreement.

Program Evaluation and Cohort Reviews
The New Hampshire program has been an important member of the TB Program Evaluation Network. At present, two programs are members of the national steering committee. We are considering plans to perform an evaluation at a regional level.

The NETBC in partnership with the Global TB Institute held a one-day TB cohort review course. More than 30 TB program staff attended the course led by Bill Bower (GTBI) and assisted by Kim Field (Washington State) and Dawn Tuckey (DTBE program consultant). The course was followed up by a webinar on how to use findings from the cohort review with presentations by four programs and Bill Bower.

Research
Massachusetts actively engages in TB research through the TB Epidemiologic Studies Consortium. Over the last 10 years, they have had CDC public health prevention specialists work on a partnership with leaders in the Haitian community. Connecticut had a CSTE/CDC fellow focus on improving medical follow-up of refugees and immigrants, an EIS officer who presented a prize-winning poster about access to care for foreign-born TB patients at the 2009 national TB meeting, and MPH students who led studies on provider practices for TB screening among school-aged children and a regional laboratory survey of mycobacterial testing capacity. The Connecticut EIS officer currently is analyzing data on TB-related deaths. Rhode Island recently coauthored an analysis of genetic clusters in the state.

Lessons learned
The New England TB Consortium demonstrates in practice that successful regional collaboration is possible and adds value to TB prevention and control efforts. As stated in the recently released evaluation of the NETBC conducted by Maureen Wilce, "Central to the consensus framework are a written strategic plan, a formal, signed memorandum of agreement, regular conference calls among state program managers, a New England TB Consortium website, and in-person meetings." To extend the regional model, DTBE will have to discuss how best to use its field staff to achieve the most efficient integration of state-based and regional activities.

Future plans
The latest step is to hold quarterly calls between the TB programs and the public health mycobacterial laboratories. A recent webinar for New England public health nurses resulted from collaboration with the Connecticut and New Hampshire labs.

The NETBC plans to extend the regional model into a broader concept of program collaboration and services integration (PCSI) by integrating HIV, STD, and viral hepatitis programs with TB program activities. First efforts of regional PCSI collaboration included a conference for outreach workers in 2009 and a regional educational conference for providers in 2010.

The NETBC has helped facilitate orientation of new program managers in several member states and integrated members into the national TB elimination movement. Members have increasingly taken on leadership positions in the areas of advocacy, evaluation, and education through all of the national TB organizations including STOP TB USA.

—Reported by TB Program Managers Sue Etkind (MA), Jill Fournier (NH), Michael Gosciminski (RI), Heidi Jenkins (CT), Adriene Rister (ME), Susan Schoenfeld (VT), and Mark Lobato (CDC)

References
1. Institute of Medicine. *Ending Neglect: The Elimination of Tuberculosis in the United States.* Washington, DC: National Academy Press; 2000.
2. CDC. Progressing toward tuberculosis elimination in low-incidence areas of the United States: recommendations of the Advisory Council for the Elimination of Tuberculosis. *MMWR.* 2002;51(No. RR-5):1–14.
3. Stop TB USA Tuberculosis Elimination Plan Committee. *A Call for Action on the Tuberculosis Elimination Plan for the United States.* Atlanta, GA: Stop TB USA; 2010. Access at http://stoptbusa.org/tepfull.pdf

TB Investigation in a Tribal Community, July 2010

Background
In June 2010, a case of pulmonary TB was diagnosed in a resident of a tribal community in the western United States. Contact investigation revealed two pediatric cases and numerous contacts with latent TB infection (LTBI). Subsequently, the tribal community, in concurrence with the Indian Health Service (IHS) and the state health department, requested onsite CDC assistance. As a member of a three-person DTBE Technical Assistance Team, I was charged with the responsibility of ensuring that a thorough contact investigation would be done; and that, if warranted, the contact investigation would be expanded. I was also asked to conduct basic TB training sessions for area public health workers, including Community Health Representatives (CHRs), nurses, physicians, and hospital administrative staff.

Activities
In the course of this assignment, I and two other members of the CDC Technical Assistance Team reviewed available medical records of all three TB patients and their contacts in order to better understand their demographic, social, and medical characteristics. I met regularly with host officials and kept the line of communication open at all times. I also shadowed the nurses as they visited patients' homes for DOT and DOPT. I travelled to interview and re-interview the index patient at a nearby medical facility. I conducted a site visit at the location where the index patient worked during his infectious period and interviewed his supervisor, who was the only person to be diagnosed with LTBI at that site. I also interviewed several of the index patient's family members, with special focus on those who were TST positive, in an effort to explore other exposure sites. I visited and interviewed a previous TB patient from the same community whose TB genotype was the same as that of the index patient. I also visited a local nursing home where both the previous and the present TB patient worked in the mid 1980s. Over the course of 2 days, I conducted TB training at the tribal health department with medical and nonmedical staff. The areas covered included fundamentals of TB, contact investigation, treatment guidelines, and DOT/ window prophylaxis.

Observations
The tribal community holds sacred a rich history of traditions and customs passed down from one generation to the next. For example, it would not be uncommon for a tribal member to request that family members be present while she or he discussed confidential health matters with public health workers. Consequently, public health professionals who are charged with conducting TB interviews and contact investigation in this community must strike a delicate balance between respecting clients' wishes and

safeguarding their confidentiality. The point here is that given the richness and complexities of the traditions and customs of the tribe, it would seem prudent for health care providers addressing issues such as disease and medicine to develop diversity and cultural sensitivity that is unique to this tribal Nation. After all, a trusting relationship with the community is (and should be) the foundation of all public health activities. And I believe that when we, as public health professionals, develop and sharpen our cultural sensitivity competencies, we become better equipped to serve our clients, regardless of socioeconomic status.

One cannot overemphasize the importance of a prompt TB interview relative to TB control. TB interviews are not just about identifying contacts who need testing. Interviews also provide an excellent opportunity for the health care worker to begin the process of building rapport with the patient, and providing education about TB disease. Interviewing patients also facilitates effective and efficient contact investigation. It is, for example, during interviews that infectious periods are determined, and in the absence of a good infectious period estimate, chances are that the health department would end up testing people who should not be tested, and omitting people who should be tested. Thankfully, after we established the index patient's infectious period, we did not miss any contacts. However, we found that a few contacts we tested probably did not have to be tested. In this time of progressively dwindling resources, TB programs should strive, as much as possible, to limit TB testing and evaluation to true contacts. In the course of this 2-week assignment, I conducted training on TB interviewing; however I believe that a more structured TB interviewing training for nurses in the tribal community would be beneficial.

It appeared that both the previous TB patient and the index patient acquired LTBI in the 1980s, when they worked at a local nursing home. Neither took LTBI treatment, and both subsequently broke down with TB disease after being diagnosed with diabetes. According to the Indian Health Service Division of Diabetes Treatment and Prevention, in 2008, approximately 16.3% of American Indian and Alaska Native adults were diagnosed with diabetes compared to 8.7% of non-Hispanic whites.[1] Further, an estimated 30% of this population had pre-diabetes. Given the high prevalence of diabetes in this sub-group, one can expect people with LTBI to reactivate disease quickly, especially if diabetes is (or becomes) a concurrent morbidity. I believe that an effective strategy would be for the TB program in the community to encourage and emphasize LTBI treatment as a potent tool for preventing future progression to TB disease among this high risk population.

The index case was infectious for a very long time (a total of 164 days). During his TB interview, the index patient gave a history of productive cough for 2–3 months prior to hospitalization. His family members and co-workers also confirmed that he was always coughing. However, neither the index case, nor his family members, nor his co-workers thought it could be tuberculosis. As a result, the index case remained infectious and was able to infect a lot more people. In light of this, I recommend a community-wide campaign (as funds permit) to educate the population about TB and its signs and symptoms. Hopefully, such a community-based outreach effort would sensitize people to think TB, and to seek care early.

The opportunity to work in the tribal community will be remembered as one of the highlights of my public health career. I thoroughly enjoyed working with both tribal and IHS staff. I did not, for a moment, feel like a stranger throughout the 2 weeks I worked on the reservation. The people were simply awesome, and I count myself privileged to have worked with them.

—Reported by Patrick Ndibe, MA
PHA, Houston Dept of Health and Human Services

Reference
1. IHS website, 2008. Diabetes in American Indians and Alaska Natives: facts at-a-glance. [online] (page last updated June 2008). [Accessed on September 14, 2010.]

The Pacific Island Tuberculosis Controllers Association (PITCA) Annual Workshop, Honolulu, HI

The 8th annual Pacific Island Tuberculosis Controllers Association (PITCA) workshop was held November 29 through December 3, 2010, at the Queens Conference Center, Honolulu, Hawaii. The sponsors for this workshop were CDC, the Pacific Island Health Officers Association (PIHOA), the Pacific Chronic Disease Coalition (PCDC), Diagnostic Laboratory Services (DLS), and the State of Hawaii Tuberculosis (TB) Control Program.

Over 120 individuals attended this meeting, with representatives from the state of Hawaii and each of the six U.S.-affiliated Pacific Islands (USAPIs) (American Samoa, Guam, the Commonwealth of the Northern Marianas Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, the Republic of Palau). USAPI representatives at the 2010 PITCA meeting included TB administrators, doctors, nurses, and laboratory staff. This year, PITCA participants again benefited from professional faculty from a variety of organizations, including CDC's Division of Tuberculosis Elimination in Atlanta, Georgia; DLS, based in Honolulu, HI; PIHOA; the U.S. Health Resources and Services Administration, National Hansen's Disease Program; the World Health Organization's Western Pacific Regional Office based in Manila; the Australian Respiratory Council; and the Curry International TB Center based in San Francisco, California.

The 2010 PITCA meeting started with an opening address by Dr. Seiji Yamada, Clinical Associate Professor of Family Practice and Public Health, University of Hawaii, John A. Burns School of Medicine. Among other topics, Dr. Yamada discussed local challenges to health care for Pacific Islanders in Hawaii. Other sessions presented at the meeting included implementation of web-based reporting for USAPI TB cases, recognizing and treating TB and diabetes co-morbidity, TB genotyping, TB cohort review, treatment of multidrug-resistant TB (MDR TB) cases and contacts, health workforce development, molecular testing for TB and drug resistance, shipping and supply, case studies of complex TB cases, emerging clinical TB issues for the USAPI, and a Grand Rounds presentation entitled "Outbreak of MDR TB in the Pacific Islands: Is Hawaii at Risk?"

The successful format for this year's PITCA workshop consisted of 3 days of plenary sessions and 2 days of breakout sessions. The first day of plenary sessions included "reports back" from all of the USAPIs and represented agencies. The jurisdictions provided updates on the status of their respective goals and objectives that were identified during the previous (2009) PITCA workshop. During the workshop, the USAPI representatives developed 2011 goals, objectives, activities, and measures for evaluation. They will report back on their achievements at the next PITCA meeting (2011) and will also submit various required progress reports. The 2 days of breakout sessions were held concurrently and included sessions specific for the laboratory, nursing, and clinical staff. Most concerns and issues raised during the sessions were discussed with the expert faculty present at the meeting and many important clinical, laboratory, and program related issues were successfully addressed prior to the conclusion of the PITCA workshop. Remaining unresolved issues and concerns are now being addressed, with the aim for resolution by the next PITCA meeting.

Relatively high rates of TB and diabetes are found in the USAPI. Therefore, this year's meeting addressed the interaction between these

two diseases. During the plenary session there was a unanimous vote to approve, endorse, and implement new Pacific Interim TB/Diabetes Guidelines. These guidelines were the product of collaborative work from numerous stakeholders after discussions about developing such guidelines began at the 2009 PITCA meeting. The guidelines will be distributed to the TB programs and are likely to be used to guide clinicians in the treatment and care of patients with TB and diabetes.

PITCA 2011 will probably be held in November or December in either Palau or the Republic of the Marshall Islands. Further information about PITCA is available from PIHOA, www.pihoa.org .

—Reported by Andy Heetderks, MPH; Al Forbes; Derrick Felix; and Richard Brostrom, MD

Navajo Nation Plans TB Information Campaign for World TB Day

The Navajo Nation TB Control Program has been working with the New Mexico Department of Health (DOH) and the Northern Navajo Medical Center in creating and implementing the "2011 Navajo Nation TB Information Campaign." This campaign was planned for March to coincide with World TB Day, March 24. Following are some of the activities:

- A media event about TB in the Navajo was held in Gallup, New Mexico, on March 10 at the University of New Mexico, in the campus gymnasium.
- PSAs both in English and Navajo are being sent to at least 44 radio stations in and around Navajo communities.
- Posters* are being placed in most Navajo communities and chapter houses.
- Billboards* are being placed at the following locations:
  - One on HWY 64 between Shiprock and Farmington
  - One on HWY I-40 near Fire Rock casino
- A 3–5 minute informational video is being created on TB prevention and treatment
  - Copies will be made available to all Navajo Area Service Unit facilities for in-house education.
- Working with Four Directions Studio in the Northern Navajo Medical Center in Shiprock, a 30-minute documentary is being created on TB in Navajo Country, showing the history of TB in this area, as well as information about TB, contact investigations, and TB treatment.
  - We anticipate that a trailer for this documentary will be available for showing at the June 2011 National TB Conference in Atlanta, Georgia.
  - A 30-minute video is expected to be completed for October 2011 showing at the Four Corners TB/HIV Conference in Santa Fe.
  - New Mexico DOH staff and Navajo Nation TB Control Program staff met on March 1, 2011, in Santa Fe to discuss World TB Day and to plan a video script.

*CDC carryover dollars provided the funding for the posters and the billboards

Editorial note: In a future issue of TB Notes, we will have a follow-up article describing how the concepts and messages for the PSAs and billboards were developed and the collaborative efforts that resulted in these important educational projects.

—Reported by Sarah Yazzie
TB Control Program Coordinator
Navajo Nation TB Control Program

2011 National TB Controllers Association Awards Open for Nominations!

For the second year, the National TB Controllers Association (NTCA) will be honoring individuals or organizations for their dedication and distinguished service in the field of tuberculosis. *Nominations can be submitted by anyone, and nominees do **not** need to be members of NTCA*. The award categories are described below. Awards will be presented at the 2011 National TB Conference, June 15–17, in Atlanta, GA.

Submit nominations to one of the NTCA Awards Committee Co-Chairs by e-mail: Shea Rabley (rableyss@dhec.sc.gov) or Peter Davidson (davidsonp@michigan.gov). Please visit the NTCA website to access the award announcement and the nomination form: http://tbcontrollers.org/
Nomination forms must be received by April 18, 2011.

NTCA Award Categories
TB Controller of the Year – This is the National Tuberculosis Controller's highest award. It recognizes an outstanding contribution and impact on tuberculosis prevention and control at the local, state, regional, or national level. The award recognizes what TB controllers are all about.

Carol Pozsik Nursing Award – This award honors exemplary care, service, dedication, or leadership in the field of TB nursing.

William Stead Clinician Award – This award recognizes outstanding commitment and performance by a clinician providing tuberculosis care, leadership, or mentoring.

Ed Desmond Award – This award honors exemplary service, dedication, or leadership in a tuberculosis laboratory professional.

Robert Koch Award – This award recognize an outstanding contribution by a tuberculosis researcher in the quest for eliminating tuberculosis.

Dixie Snider Award – This award recognizes a CDC employee who has provided outstanding support, through partnership with a state or local tuberculosis community, in the interest of tuberculosis control and prevention.

Charles DeGraw Advocacy Award – This award recognizes an individual or organization that has made an outstanding effort or achievement in advocating for increased support and recognition of tuberculosis control and prevention efforts.

Joe Ware Corporate Service Award – This award recognizes a company making a significant contribution to the mission of tuberculosis control and prevention.

—Reported by Denise Ingman
NTCA Awards Committee and Secretary

The following article is reprinted in full from the New Jersey Medical School Global Tuberculosis Institute newsletter, *Northeastern Spotlight*, Winter 2011; vol. 5, no. 4, with permission of the author and the newsletter editor.

Behavioral/Social Science Contribution to TB Control - Incentives and Enablers in TB Control

There is growing interest in the use of incentives in many aspects of public life. Incentive programs have paid students for improved grades and/or attendance and welfare recipients for seeking work, in addition to employee health initiatives in which corporations give bonuses for employees' smoking cessation or weight loss.[1] Incentives are given to patients as a reward for being adherent — they may not be directly related to the patient's TB treatment. Incentives may include movie tickets, phone cards, and gift cards for groceries or clothes. In contrast, enablers are given to patients to remove barriers to treatment, such as transportation tokens or coupons, or assistance with child care. Enablers are meant to assist patients in adhering to TB treatment.

It is important to tailor incentives and enablers to the population being served. Carol Pozsik identified incentives and enablers appropriate in a rural setting, such as groceries, gasoline, or fishing equipment.[2] In a Harlem, NY, on-site DOT program, El-Sadr stressed the importance of group incentives that build social cohesion such as holiday dinners, trips to amusement parks, and parties to celebrate treatment completion.[3]

Current Clinical Practice in the U.S.
Incentives and enablers have long been used in TB control in the United States. While recent CDC guidelines do not specifically address incentives and enablers, they are presented as a "best practice" for ensuring adherence in the CDC Self-Study Module #9.[4]

TB/LTBI Studies on Incentives/Enablers
The literature offers a substantial number of studies demonstrating that incentives and enablers led to positive treatment outcomes in developing countries. In the United States, the practice of providing incentives and enablers has become so common that few studies examining the practice exist. Bock found that when given a modest cash equivalent for each tuberculosis therapy session they attended, DOT patients became significantly more likely to complete therapy, compared with patients treated in a prior period.[5]

In the early 2000s, four randomized clinical trials examined the effect of monetary incentives as compared to peer workers in relation to LTBI treatment in high-risk populations. Two of these studies found higher completion in participants who received monetary incentives compared to those who had a peer worker, despite the fact that the peers provided DOT for LTBI.[6,7] The other two found no differences.[8,9] In Newark, NJ, provision of a nutritional supplement was associated with improved treatment outcomes for patients on LTBI therapy.[10]

Findings from the Health Psychology Literature
Despite an ongoing practice of rewarding medical providers for their performance, it is only recently that healthcare programs have begun to reward patients. Such rewards, or incentives, generally fall into two categories: 1) rewarding patients each time they exhibit a certain behavior, such as showing up for a DOT appointment or producing a urine sample free of illicit substances;[5] and 2) rewarding patients for reaching a pre-defined goal, such as losing 10 pounds or quitting smoking.[11] In TB, incentives have been used for both purposes.

Findings from research in behavioral economics and psychology suggest ways in which incentives may be made more persuasive to patients.[11] For instance, lottery-based incentives can be more effective than lump-sum payments. Behavioral economists have found that individuals tend to overestimate the probability of unlikely events such as winning a lottery, and also tend to minimize small costs and benefits (the "peanuts effect"). Therefore, rewarding patients by entering them in a lottery for those who have achieved a specified goal may be more effective than offering all of them small rewards. Also, gradually increasing the size of the incentive (e.g., $4 per visit in the first month, $6 in the second month, etc.) gives patients more to lose when they miss appointments and have to start

again. Finally, small incremental rewards are more effective than one large reward. For that reason, most studies that focused on adherence have relied on small, frequent rewards.[12,13] While the incentives typically provided in DOT programs meet this third suggestion, they generally have not used graduated reward systems or included the element of chance.

Ethical Concerns about Incentives

Several aspects of incentivized health behaviors have provoked ethical concerns. Financial incentives may infringe on the autonomy of individuals to exercise particular personal preferences, such as tobacco use. Furthermore, the prospect of financial gain through incentives may exercise disproportionate influence on individuals of limited means, and incentives are therefore inequitable. Proponents respond that the effect of incentives is to provide individuals with an additional choice of incentives versus the undesired behavior, and that because incentives are tied to a specific event of behavior change and do not preclude future choices to return to the behavior, they cannot properly be thought of as restricting autonomy. Because incentives do not actually create additional burdens for vulnerable populations but offer new sources of potential reward, their effect is not truly inequitable.

Privacy concerns about incentives revolve around the need to monitor behaviors through blood, urine, or other analyses, which increases the involvement of employers and government in individuals' lives. These concerns must be balanced against the legitimate concerns of public and corporate entities to control behaviors that add to their burden of healthcare or other costs.

An additional critique of financial incentives based on their societal implications suggests that monetizing health-promoting behaviors subverts the social value of those behaviors. This concern is relevant to incentivizing individual adherence to treatment of infectious disease, which has the public health benefit of reducing disease transmission in addition to the individual benefit of cure. Proponents of incentives argue that the power of extrinsic motivations (e.g., incentives) to override intrinsic motivations (e.g., taking actions to benefit society or an individual's long-term interests) has not been determined empirically. The practical benefit of extrinsic motivations to further a goal outweighs the theoretical risks that wider appeals to intrinsic motivations may be undermined.[14]

This final point about the collective benefits of promoting individual behavior through extrinsic reward is part of the rationale for incentivizing treatment for TB disease. This argument can be extended to treatment of latent TB infection (TLTBI) in that TLTBI is an important step toward the elimination of tuberculosis.

—By Paul Colson, PhD, Program Director, and Julie Franks, PhD, Health Educator and Evaluator, Charles P. Felton National TB Center at Harlem Hospital

Thanks to Tal Gross, PhD, Mailman School of Public Health, Columbia University

References

1. Belluck P. For forgetful, cash helps the medicine go down. NYT June 13, 2010.
2. Pozsik CJ. Compliance with tuberculosis therapy. Med Clinics of N Am 1993; 77(6):1289-301.
3. El-Sadr W, Medard F, Dickerson M. The Harlem family model: a unique approach to the treatment of tuberculosis. J Pub Hlth Mgmt Prac 1995.1(4):48-51.
4. CDC. Module 9: Patient Adherence to Tuberculosis Treatment. Available at www.cdc.gov/tb/education/ssmodules/module9/ss9reading3.htm. Accessed on November 17, 2010.
5. Bock NN, Sales R-M, Rogers T, DeVoe B. A spoonful of sugar…: improving adherence to tuberculosis treatment using financial incentives. Int J Tuberc 2001;5(1):96-98.
6. Malotte CK, Hollingshead JR, Larro M. Incentives vs outreach workers for latent tuberculosis treatment in drug users. Am J Prev Med 2001;20:103-7.

7. Tulsky JP, Pilote L, Hahn JA, et al. Adherence to isoniazid prophylaxis in the homeless: a randomized controlled trial. Arch Intern Med 2000;160:697-702.
8. Chaisson RE, Barnes GL, Hackman J, et al. A randomized, controlled trial of interventions to improve adherence to isoniazid therapy to prevent tuberculosis in injection drug users. Am J Med 2001;110:610-5.
9. Morisky DE, Malotte CK, Ebin V, et al. Behavioral interventions for the control of tuberculosis among adolescents. Public Health Rep 2001;116:568-74.
10. Mangura BT, Passannante M, Reichman I. An incentive in tuberculosis preventive therapy for an inner city population. Int J Tberc Lung Dis 1999:1(16):567-568.
11. Volpp KG, Pauly MV, Loewenstein G, Bangsberg D. P4P4P: an agenda for research on pay-for-performance for patients. Health Aff (Millwood) 2009;28:206-14.
12. Volpp KG, John LK, Troxel AB, Norton L, Fassbender J, Loewenstein G. Financial incentive-based approaches for weight loss: a randomized trial. JAMA 2008;300:2631-7.
13. Tulsky JP, Hahn JA, Long HL, et al. Can the poor adhere? Incentives for adherence to TB prevention in homeless adults. Int J Tuberc Lung Dis 2004;8:83-91.
14. Halpern SD, Madison KM, Volpp KG. Patients as mercenaries? The ethics of using financial incentives in the war on unhealthy behaviors. Circ Cardiovasc Qual Outcomes 2009; 2: 514-516.

TB EDUCATION AND TRAINING NETWORK UPDATES

Beth shows her TB Educator of the Year award, as Deb Sodt looks on.

Member Highlight

In this issue of TB Notes we highlight Beth Kingdon. Beth was the 2010 recipient of the TB Educator of the Year Award. This award recognizes an individual who has shown dedication and leadership in the field of TB education and training.

Beth Kingdon, MPH, is the TB Education Coordinator/Planner for the Minnesota Department of Health, TB Prevention and Control Program in St. Paul, MN. She is responsible for overseeing and implementing Minnesota's TB Training and Human Resources Development Plan. Beth is also Minnesota's TB Training Focal Point. She earned her MPH at the University of Minnesota School of Public Health.

Beth's program, the Minnesota Department of Health (MDH), partnered with the Heartland National TB Center and the American Lung Association of Minnesota to present a 1-day Advanced TB Nurse Management course in St. Paul, Minnesota, in October 2010. The course was attended by 18 Minnesota public health nurses with expertise in TB; these nurses manage approximately 90% of Minnesota's TB cases. The course focused on practical information and strategies; the topics presented were largely chosen by the nurses who planned on attending the course, through a pre-training survey. Beth states that the course was very well received by the attendees. Other training courses she has helped implement include TB Nurse Case Management in 2006, Contact Investigations in 2007, and a TB Intensive course in 2008.

Beth points to the MDH TB website as especially noteworthy. In 2010, the TB website had over 301,000 views and downloads. The site features resources for both health care providers and patients, including six patient fact sheets in English and 13 other languages; in 2010, the fact sheets were downloaded over 54,000 times. The patient fact sheet languages reflect the diversity

of people who move to Minnesota as refugees or immigrants. Minnesota is one of only a few states that offer TB patient educational materials in such a wide variety of languages. The website also includes information about ordering a free "TB Awareness and Treatment" DVD in English and six other languages; over 2,800 DVDs have been distributed at no cost throughout Minnesota and other states. According to Beth, the MDH is currently reorganizing portions of its TB website to make navigating the site more intuitive. The reorganization should be completed by the middle of 2011. Beth encourages readers to visit and take a look later this year!

Beth learned of TB ETN through Deb Sodt, Minnesota's TB Controller. She joined TB ETN so that she could learn more about available TB resources and methods for reaching healthcare providers and affected populations. "I have found networking to be the more important aspect of belonging to TB ETN," Beth stated.

If you'd like to join Beth as a TB ETN member and take advantage of all TB ETN has to offer, please send an e-mail requesting a registration form to tbetn@cdc.gov. You can also send a request by fax to 404-639-8960 or by mail to TB ETN, CEBSB, Division of Tuberculosis Elimination, CDC, 1600 Clifton Rd., N.E., MS E10, Atlanta, Georgia 30333 or, if you would like additional information about the TB Education and Training Network.

Training Tips: Adding Interaction to Your Trainings

Research and experience have shown that the more your training audience is engaged with the topic and material, the more they learn and retain. While we would all like to have speakers who WOW the audience, it is not always possible to have a "star" as a presenter. A simple but very effective tool is available to educators to provide interactive and effective learning: the audience response system (ARS).

The basic audience or personal response system employs a computer and projector. Presentation slides are built using audience response software (provided by the manufacturer of the hardware) and include various options of interactivity, analysis, and result sharing. Participants or audience members have a hand-held remote pad that conveys individual responses wirelessly; tabulated group results can be seen immediately. Educational institutions have used them for a while — most college students are required to purchase their own personal response system or "clicker" for use in class. This tool is finally making its way into the arsenal of the public health educator!

Heartland National TB Center has incorporated the audience response system into many of its on-site trainings. The software provided with the hardware allows easy manipulation of the slides to incorporate questions that assess knowledge, opinions, and even demographics! We have used the system to gather demographics at the beginning of a course and help break the ice. Questions have been added during didactic presentations to reinforce key points, assess audience comprehension, provide a change of pace to keep the audience engaged, and garner consensus on issues such as treatment regimens, next steps in case management, and even how many routinely do HIV screening.

Responses can be anonymous, or clickers can be assigned and used to assess individual responses, such as in pretests and posttests. Heartland is even developing a process that will allow participants to provide their evaluations of each presentation and the course through the ARS, thus reducing the need for paper evaluations and decreasing the turn-around time for assessment of each course; most ARS systems provide for file storage of responses and results, enabling reports to be generated. Heartland has offered to lend its experience and ARS equipment to the states in its region, both to help health educators develop their own slides for presentation as well as to build capacity and

encourage adapting the technology to local needs.

There are many ways to incorporate the ARS technology into health education; it takes just a little training and effort to bring this interactivity into teaching. The learning experience is enhanced, participants feel engaged, and comprehension and retention is increased — true measures of a successful educational event!

—Reported by Mary Long
Director, Education and Training
Heartland National TB Center
San Antonio, Texas

TB PROGRAM EVALUATION NETWORK UPDATE

TB PEN Sponsors 1st Program Evaluation Webinar

During the TB Program Evaluation Network (TB PEN) joint teams call on September 1, 2010, it was determined that focal points desired more opportunities to discuss program evaluation outside of the TB PEN Conference. As a result, the TB PEN teams co-chairs agreed on the need to follow through with routine conference calls (webinars) for ongoing practical discussions of how program evaluation is being conducted in the field, focusing on user-generated topics to be made available to everyone.

This webinar series is sponsored by TB PEN and serves as a forum for program staff and program evaluation (PE) focal points to discuss and share perspectives and lessons learned on program evaluation related activities. These calls are not used to provide ongoing clarification of CDC policy or funding, but rather to give states and focal points the chance to network and exchange ideas, to act as a forum for sharing lessons learned, and to examine how the National TB Indicators Project (NTIP) can be incorporated into evaluation practices. The monthly topics chosen for discussion fall under three categories: NTIP implementation, cohort review, and evaluation.

On November 10, 2010, TB PEN held the first network webinar. The topic was "Evolution of Cohort Review in Chicago." The webinar was presented by Juan Elias, TB Field Operations Manager, Chicago Department of Health, and facilitated by Brandy Peterson, Program Evaluation Team Representative, CDC / DTBE / FSEB. The objectives for this webinar were to illustrate the changes of the cohort review process in Chicago, describe how this process is different from the traditional cohort review, and demonstrate how NTIP is used in the new process.

Approximately 45 individuals who serve as the assigned points of contact for TB program evaluation within their respective agencies (PE focal points) were logged into the webinar. The webinar provided an overview of the cohort review process in Chicago and lessons learned. The question-and-answer session was an open forum in which PE focal points could ask questions and provide comments to the presenter and other participants. A future *TB Notes* article will feature details of the TB PEN webinar on the Evolution of Cohort Review in Chicago.

Overall, attendee evaluations indicated that the majority (80%) felt the objectives were addressed clearly; the content was useful, informative, and addressed their needs for information; and they can apply the knowledge gained from the presentation.

Suggested TB PEN webinar topics for 2011:

- What other states are doing, different evaluation models.
- How to use data obtained during cohort review in program evaluation.
- Examples of what some programs have done for their program evaluation projects, outcomes from those, and how they

implemented some or all of their recommendations or findings.

This forum provides participants with an opportunity to interact with their colleagues on a selected program evaluation topic and assist them with gaining a better understanding of conducting program evaluation and effectively addressing topic-specific issues. Questions related to CDC guidance and requirements are not addressed during the webinars; they are referred to the program's DTBE consultants and evaluation representatives. The intent of these sessions is to combine theory with practical application and provide a variety of speakers representing both CDC and state and local TB programs. All PE focal points are invited to participate in the webinars. Information for the webinars will be provided to the PE focal points as they are scheduled.

Please contact the TB PEN Steering Committee and TB PEN Team Co-Chairs at tbpen@cdc.gov if you have suggestions for future TB PEN webinar topics.

—Reported by Brandy Peterson, MPH, MCHES
Div of TB Elimination, and
Stephen E. Hughes, PhD
TB PEN Co-Chair, NY State Department of Health

COMMUNICATIONS, EDUCATION, AND BEHAVIORAL STUDIES BRANCH UPDATES

Dr. Castro Provides Expert Commentary on IGRAs for Medscape

Medscape from the website WebMD is a source of medical news features, commentary, and reference content for more than 32 physician specialties and for nurses, pharmacists, and other health professionals. CDC and *Medscape* are collaborating to produce a special series of CDC expert commentaries designed to deliver authoritative guidance directly to *Medscape's* physicians and other health care professionals. In the series, experts from CDC offer video commentaries on current topics important to all practicing clinicians, including H1N1 and seasonal influenza, infection control, travel medicine, and more.

DTBE's Communication Team of the Communications, Education, and Behavioral Studies Branch developed the script, and on February 16, DTBE's Director, Dr. Kenneth Castro, recorded a commentary titled *What's New in Blood Testing for TB Infection?* at the CDC broadcast studios in Atlanta. The commentary was posted on March 14, 2011, on Medscape's site where it can be viewed after a short registration process. As an alternative, it can be viewed on the DTBE website at www.cdc.gov/tb where it is currently listed under "News and Announcements," or on DTBE's Testing and Diagnosis web page at http://www.cdc.gov/tb/topic/testing/default.htm under "Related Links for Health Care Providers."

Other examples of *Medscape's* "CDC Expert Commentary Series" to date are available at http://www.medscape.com/partners/cdc/public/cdc-commentary. The videos are displayed in chronological order on *Medscape's* CDC Video Commentary page.

—Reported by Ije Agulefo, MPH
Div of TB Elimination

CDC TB Website Usability Study Results for 2010

Introduction
In 2010 the DBTE web team conducted three in-person usability studies on the TB website. The purpose of these studies was to observe participants as they completed tasks on the DTBE website. These data will be used to make website improvements to increase performance and user satisfaction.

The three studies conducted in 2010 were in follow-up to the baseline studies conducted in 2007 and 2009. The focus of the 2010 studies was to observe participants in person, unlike the previous studies that had been conducted remotely.

Study Methods

The studies used Web Effective Keynote and TechSmith's Morae usability software. This software enables the videotaping of participants and collects participants' responses to web tasks. Using a laptop, 36 participants completed the studies. A facilitator and note taker were present for each study. The studies were conducted during conferences in March (the North American Region International Union Against TB and Lung Disease), June (National TB Conference), and August (TB Education and Training Network). Recruitment for the studies was primarily through e-mail. An e-mail was sent prior to the conferences to those who had registered to attend. For the first study in March, participants were also recruited at the DTBE materials display booth. The studies took, on average, 63 minutes to complete.

During the usability studies, participants:

- Completed a background questionnaire,
- Answered questions regarding their initial impressions of the website,
- Performed real-world tasks on the website,
- Answered questions about what they liked or disliked on the website, and
- Answered demographic questions about themselves.

In the studies, there were 10 task scenarios that each participant tried to complete. See appendix A for a list of the tasks.

This is an example of a task scenario:

You are a nurse who would like to give your patients information to help them adhere to TB treatment. Use the CDC DTBE website to find this information.

Study Participants

Thirty-six participants completed the study. The study participants included public health professionals (54%), health care providers (26%), researchers or scientists in the health or medical field (3%), and others (17%) (TB controllers, data analysts, international TB program staff, and vendors).

Participants were predominantly 40–59 years of age; 68% had achieved an advanced degree; 74% of study participants were female; and 74% of the participants worked in state, local, or federal government. (Figure 1)

Most participants considered their level of Internet experience intermediate (57%) and their computer experience intermediate (74%). Participants who had previously visited the DTBE website prior to the study visited several times a month. (Figure 2)

Forty-six percent of participants spent 21 or more hours per week, including office and personal use, on the Internet. Seventy-seven percent used the Internet at work, and most participants read online the information they found on the DTBE website. (Figure 3)

Overall, study participants represented medium- to high-end users of the DTBE website.

Participant Performance

Overall, 90% of participants were successful at completing the 10 task scenarios. Only 10% were unsuccessful in using the TB website to complete the scenarios

Figure 1: Where Participants Worked

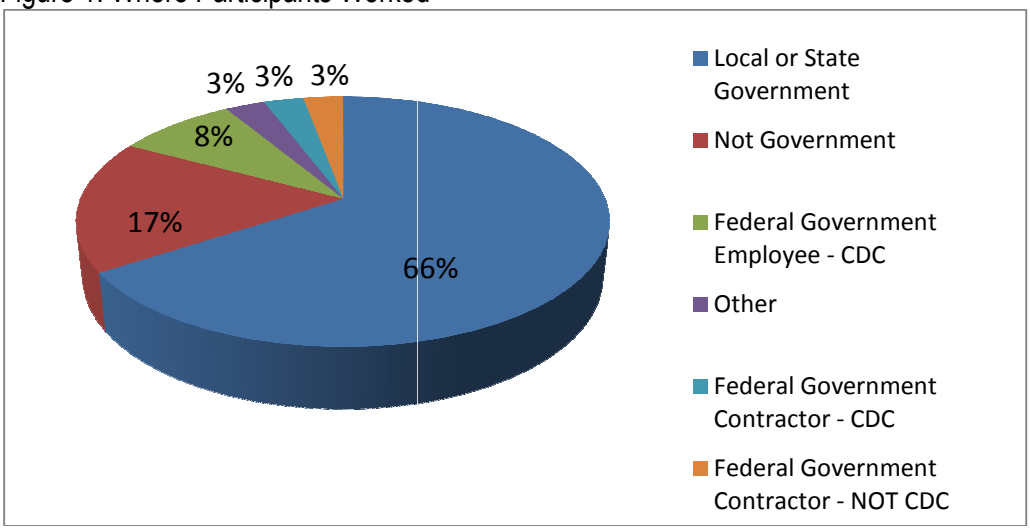


Figure 2: Participants' Use of the TB Website

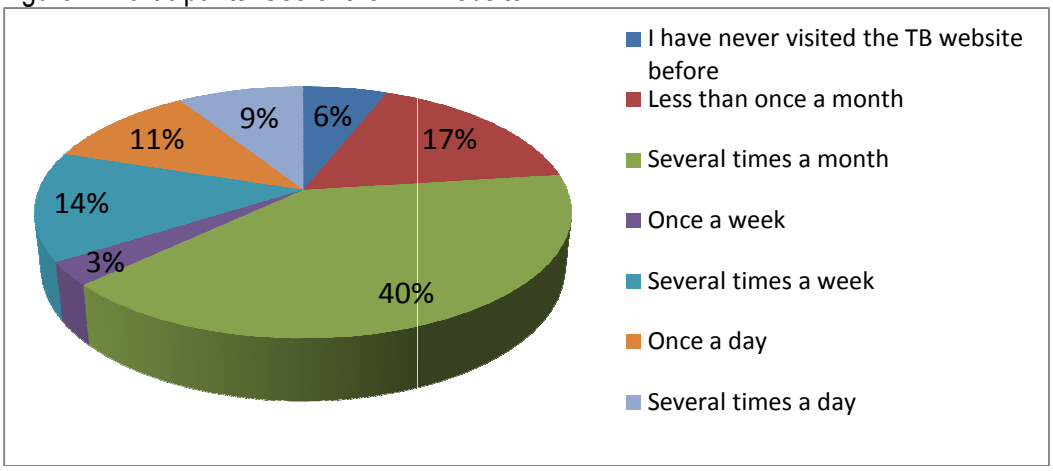


Figure 3: How Participants Use Information from the DTBE Website

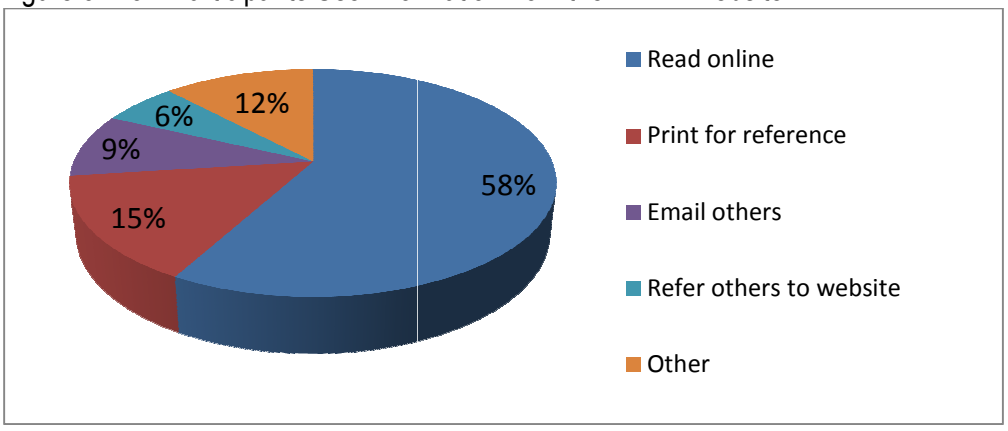
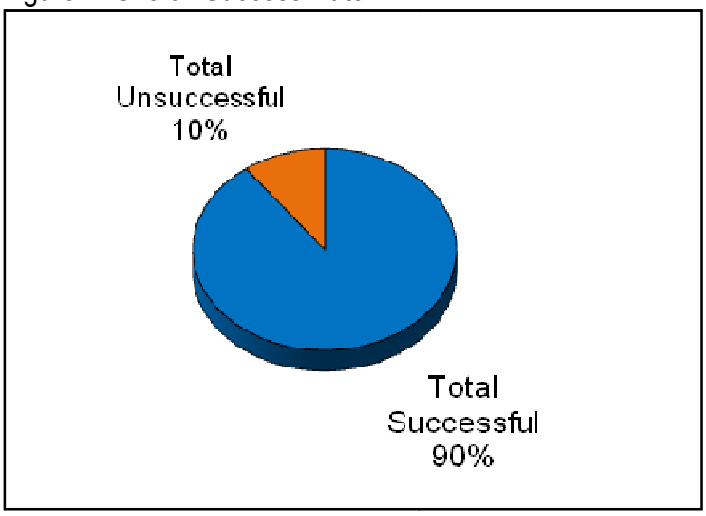
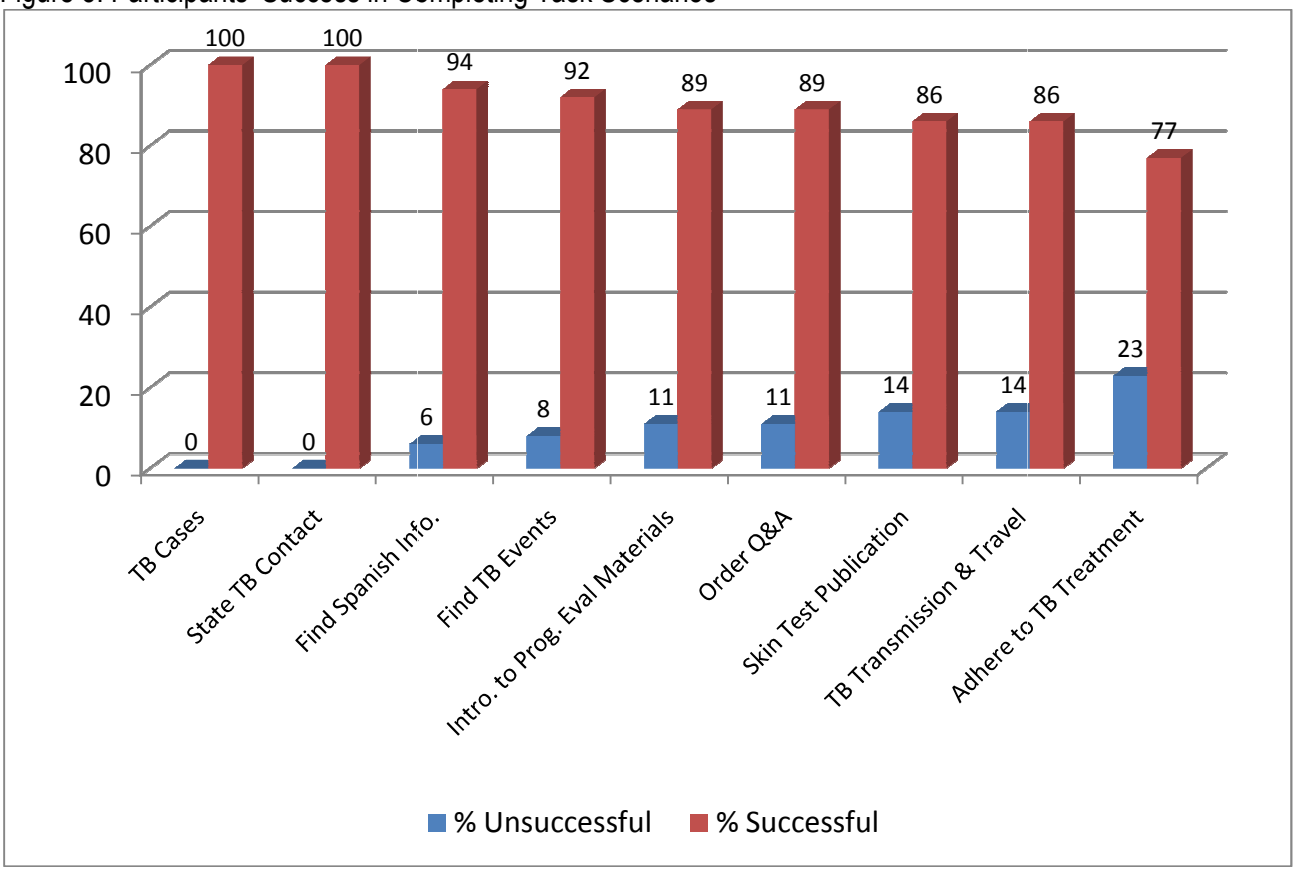


Figure 4: Overall Success Rate



Many of the tasks had a 100% success rate. See Figure 5 below for the success rates of each task.

Figure 5: Participants' Success in Completing Task Scenarios



Out of the 10 tasks that participants were asked to accomplish, three tasks were more challenging to complete compared to the rest. Those tasks are listed below.

1. *Adhere to TB Treatment*: You are a nurse who would like to give your patients information to help them adhere to TB treatment.
2. *TB Transmission & Travel*: Next month you will travel to South Africa. You know that South Africa has a high rate of tuberculosis (TB). You would like to find information on travel to help reduce the risk of TB transmission.
3. *Skin Test Publication*: At a recent conference you picked up a DTBE document entitled "What you need to know about the TB skin test." You currently have one copy and would like to print copies of the document to give to patients.

Findings and Recommendations

Task 1 identified an issue with how publications and products are categorized. Participants stated that they would search by audience first versus topic or format. Recommend adding audience-specific publication groupings on the Publications and Products web page.

Participants had trouble deciding where to click on the DTBE home page in order to complete task 2. Currently, TB travel information is located within two topics on the DTBE home page, specific populations and infection control. This was not apparent to participants in the study. Once participants had selected the topic, specific populations, they stated that they found it strange to find it there. Recommend adding descriptive text to the infection control topic indicating that travel information is contained within this topic. Review the placement of this information and consider conducting a card sort if a better placement is not obvious.

Task 3 further emphasized the issue with how publications and products are categorized on the DTBE website. Participants had difficulties selecting the correct format category when they reached this web page. Recommend adding audience-specific publication and product groupings, along with definitions for each format type. This way, a user of the website will know what they will find in each publication format category. Also, consider adding a link to patient materials or patient education on the DTBE home page.

Conclusion

These studies indicate that overall, the DTBE website has high usability among two of the primary audiences, health care providers and public health professionals. However, there is room for improvement and the DTBE web team remains focused on identifying usability issues, providing solutions, and increasing user performance of the website.

In 2011, the DTBE web team will be implementing some of the recommended changes. The team will also conduct further testing to ensure the success of these changes. In 2011 usability studies will be conducted with additional user groups, including members of the general public.

We would like to thank all of you who took the time to complete this study, and welcome any comments and feedback you would like to share with the DTBE web team (e-mail: hsttbwebteam@cdc.gov).

—Submitted by Sharon Mc Aleer, MISM, CUA
Div of TB Elimination

Appendix A – Task scenarios for CDC TB website usability study

1. *Find TB Events*: Your employer has asked you to attend two TB events in 2010. Use the CDC DTBE website to find a Calendar of Events. When you find the answer, click on the green answer button, and select the two events that you plan to attend.
2. *Introduction to Program Evaluation Materials:* A. Use the CDC DTBE website to find the

section specifically for TB programs. Indicate when you have found it.
B. You would like to download some introductory information on program evaluation. When you find this information, click the green answer button and select the document title.

3. What are your thoughts on the "Resources for TB Programs" section of the website? Do you think more resources should be added?
4. *Adhere to TB Treatment*: You are a nurse who would like to give your patients information to help them adhere to TB treatment. Use the CDC DTBE website to find this information. When you find the answer, click on the green answer button and select the correct page title where you found this information.
5. *Skin Test Publication*: At a recent conference you picked up a DTBE document entitled "What you need to know about the TB skin test." You currently have one copy and would like to print copies of the document to give to patients. Use the CDC DTBE website to find this information. When you find the answer, click on the green answer button and select the format that the document is in.
6. *Order Questions & Answers*: You would like to order "Questions and Answers about TB." What is the maximum amount that you can order? When you find the answer, click on the green answer button and select the maximum amount available for order.
7. *TB Transmission & Travel*: Next month you will travel to South Africa. You know that South Africa has a high rate of TB. You would like to find information on travel to help reduce the risk of TB transmission. Use the CDC DTBE website to find this information. When you find the answer, click on the green answer button and select the page title where you found this information.
8. *Find Spanish Information*: You would like to find a document with general TB information in a language other than English. Does the CDC DTBE website offer documents in Spanish? When you find the answer, click on the green answer button and select an answer.
9. *State TB Contact*: You would like to find TB data for your local area. You notice that the CDC DTBE website provides state data but not county data. You would like to contact the state TB control program to get information. Use the CDC DTBE website to find the state TB control program contact for Tennessee. When you have found the answer, click the green answer button and select the correct telephone number for the Tennessee state TB control program contact.
10. *TB Cases*: How many TB cases were reported in the United States in 2008? Once you find the answer, click the green answer button and select the correct number.

LABORATORY BRANCH UPDATE

Organizational Name Change for DTBE's Laboratory Branch

The Mycobacteriology Laboratory Branch of the Division of Tuberculosis Elimination (DTBE) has changed its name to the Laboratory Branch (LB).

The change has been adopted to reflect the mission of the branch to comprehensively support DTBE, and parallels the transfer of laboratory services for the identification of nontuberculous mycobacteria to CDC's Clinical and Environmental Microbiology Branch of the Division of Healthcare Quality Promotion. This was described in TB Notes No. 4, 2009. Further, the new name is in alignment with the other laboratory branches in the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, none of which designate target diseases (see http://www.cdc.gov/tb/about/orgchart.htm).

The mission of the newly renamed Laboratory Branch will remain the same: the branch is dedicated to the elimination of TB by conducting

applied public health laboratory research, by providing laboratory services to support TB control and surveillance, and by directly supporting U.S. public health laboratories to increase their capacity to combat TB. All policies, activities, projects, and pursuits remain unchanged, and all personnel will continue in their endeavors.

We welcome this name change to more accurately reflect the important, vital role that the branch plays in furthering the mission and the goals of DTBE, in partnership with state and local laboratories in our national network.

—Submitted by Frances Tyrrell
Div of TB Elimination

SURVEILLANCE, EPIDEMIOLOGY, AND OUTBREAK INVESTIGATIONS BRANCH UPDATES

DTBE Homeless Initiative

Did you know that in the United States, 1% of persons experience homelessness each year, while 6% of persons diagnosed with TB have been homeless in the previous year?

TB was recognized as a disease disproportionately affecting persons in unhealthy living conditions as early as 1815. In 1914, an editorial in the Journal of the American Medical Association noted that TB was a "disease of malnutrition, bad housing, and low wage" and that cheap lodgings frequented by homeless persons were "veritable breeding places" for TB. Over three quarters of TB outbreaks recently investigated by DTBE have involved homeless persons. In one outbreak, all 31 persons with TB were linked to a single homeless shelter. CDC recently instituted a new surveillance system for detecting aberrations in TB genotype clusters; this system continuously scans TB patient reports for statistical anomalies that indicate possible outbreaks. Analyses of genotyping data have shown that homelessness is a powerful predictor of TB genotype cluster growth. These findings are not surprising, given that persons who are homeless have a high prevalence of conditions that increase the risk of TB, including substance use, HIV infection and other medical conditions, and residence in crowded shelters—a combination conducive to *Mycobacterium tuberculosis* transmission in a population that often lacks ready access to medical care.

DTBE has established a multibranch committee to better understand the burden of TB among persons experiencing homelessness and the work being done by state and local TB programs and other federal agencies to improve screening, diagnosis, and treatment of TB among homeless persons. The committee has proposed a number of projects to describe the problem more thoroughly, solicit feedback from TB controllers, and provide venues to discuss this issue—for example, a symposium at the 2011 National TB Conference.

To begin this process of improved partnership with providers caring for the homeless, Sapna Bamrah and Krista Powell attended the 2010 National Health Care for the Homeless Council Annual Meeting in June 2010. There, they met with providers interested in TB care, learned about the Health Care for the Homeless Clinician's Network and Research Council, and discussed potential future collaborations.

In August 2010, members of DTBE's committee on homelessness were part of CDC's first Homeless Symposium, coordinated by Samantha Williams (NCHHSTP, DSTDP). Dr. Castro moderated a session at the symposium dedicated to TB. Krista Powell and Adam Langer from SEOIB's Outbreak Investigation Team shared data from a recent outbreak investigation and analyses of the effect of homelessness on TB cluster growth using data from the National TB Genotyping Service. Steve Martin, an industrial engineer from NIOSH, shared his

experiences in providing guidance on improved environmental controls after a TB outbreak in a homeless shelter. As a result of the symposium, NCHHSTP is in the process of establishing a formal Public Health and Homeless Workgroup. The symposium planning committee was recently awarded the NCHHSTP Director's Recognition Award for their efforts in coordinating this CDC-wide event focused on homelessness.

On a more local level, some of the DTBE committee members volunteer with local homeless-person service providers in Atlanta to provide medical care and other services to individuals and families experiencing homelessness. In the first weeks of February 2011, these DTBE staff also served as interviewers with Pathways and St. Joseph's Mercy Care on the biennial Atlanta homeless census. TB controllers and providers have historically been at the forefront of innovative care for challenging populations, particularly in persons experiencing homelessness, and we hope to continue that trend with this new initiative.

—Reported by Sapna Bamrah, MD
Div of TB Elimination

18th Semiannual Meeting of the Tuberculosis Epidemiologic Studies Consortium (TBESC)

Charging the Tuberculosis Epidemiologic Studies Consortium (TBESC) members to "finish what you started; reap what you harvest," Dr. Ken Castro, Director, Division of Tuberculosis Elimination, welcomed participants to the 18th Semiannual TBESC Meeting in Atlanta, GA. Approximately 150 principal investigators, project coordinators, and other TBESC personnel attended the meeting January 19–20, 2011, at the Crowne Plaza Ravinia Hotel in Atlanta, GA, to discuss recent TB research and to plan next steps needed for current research in breakout sessions. The 18th Semiannual Meeting was of particular importance to attendees, as the current TBESC contract will end in September 2011. At this time, research activities must be completed. Unlike previous meetings in which projects were in various stages of development, every participant at this meeting was focused on completion of research and bringing the projects to fruition.

New analysis of data from Task Order 9, Preventing Tuberculosis in the Foreign-born, suggests that counting of prevalent TB cases may partially explain the high rates of TB among foreign-born persons in the first year after arrival in the United States. These cases, which likely had onset in the patient's home country, are counted as incident cases. Because control strategies differ for prevalent and incident cases, it is important to separate the two. The Task Order 9 analysis of questionnaire and surveillance data from 1,454 foreign-born adults noted that nearly half of TB patients diagnosed in the first year of arrival were diagnosed within the first 3 months. Of those reporting symptom onset on or before the date of arrival, almost three quarters were diagnosed within the first 3 months. The results suggest that prevalent cases could be distinguished from incident cases by two criteria: 1) diagnosis within the first 3 months of arrival, and/or 2) symptom onset before arrival.

Dan Blumenthal from the Atlanta Clinical and Translation Science Institute discussed "Translating Research into Practice." The translation of TBESC research into findings that can be used by the TB community was particularly germane as the group focuses on the completion of current research projects. Dr. Blumenthal told the group to design interventions in collaboration with those who will be intervened upon, e.g., health care providers. He instructed the group to retain the core elements of the studied intervention, and stated that the best way to implement an intervention is through multimedia presentations. Live interventions such as meetings are also effective; printed articles

are generally ineffective in changing health care provider behavior.

Denise Garrett, MD, project officer for TBESC, also gave an update on the TBESC recompetition. Her presentation included a timeline for the recompetition and an estimate that the Request for Proposal will be released soon.

Highlights of the second day of the meeting included preliminary data from the study, "National study of determinants of early diagnosis, prevention, and treatment of TB in the African-American community." Rachel Royce, PhD, reported that analysis of current data indicates that the median number of healthcare visits prior to TB diagnosis is two in African Americans and three in whites. Further, more whites than African Americans had over 12 months elapse between symptom onset and TB diagnosis. African Americans diagnosed with TB were younger than whites, more likely to be male, and more likely to have an income less than $20,000 per year.

Other highlights from the second day of the conference included updates from the Publications and Presentations Committee, the Translating Research into Practice Workgroup, and the External Relations Committee.

The 19th Semiannual TBESC meeting, and final meeting for the current consortium, will be held in Chicago, IL, July 20–21, 2011.

—Reported by Suzanne Beavers, MD
Div of TB Elimination

NEW CDC PUBLICATIONS

Blaya JA, Shin S, Contreras C, Yale G, Suarez C, Asencios L, Kim J, Rodriguez P, Cegielski P, Fraser HSF. Full impact of laboratory information system requires direct use by clinical staff: cluster randomized controlled trial. Journal of the American Medical Informatics Association 2011 Jan; 18(1):11–16.

Brostrom R, Fred D, Heetderks A, Desai M, Song R, Haddad M, Wada R, Bamrah S. Islands of hope: building local capacity to manage an outbreak of multidrug-resistant tuberculosis in the Pacific. American Journal of Public Health 2011 Jan; 101(1):14–18.

Campbell PJ, Morlock GP, Sikes RD, Dalton TL, Metchock B, Starks AM, Hooks DP, Cowan LS, Plikaytis BB, Posey JE. Molecular detection of mutations associated with first- and second-line drug resistance compared with conventional drug susceptibility testing in *M. tuberculosis*. Antimicrob Agents Chemother 2011 Feb 7. [Epub ahead of print].

Castro KG, LoBue P. Bridging implementation, knowledge, and ambition gaps to eliminate tuberculosis in the United States and globally. Emerg Infect Dis 2011 Mar.

Getahun H, Kittikraisak W, Heilig CM, Corbett E, Ayles H, Cain KP, Grant AD, Churchyard G, Kimerling M, Shah S, Lawn SD, Wood R, Maartens G, Granich R, Date A, Varma JK. Development of a standardized screening rule for tuberculosis in people living with HIV in resource constrained settings: individual participant data meta-analysis of observational studies. PLoS Medicine 2011;8:e1000391.

Goodchild M, Sahu S, Wares F, Dewan P, Shukla RS, Chauhan LS, Floyd K. A cost-benefit analysis of scaling up tuberculosis control in India. Int J Tuberc Lung Dis 2011 Mar; 15(3): 358-62.

Hiraishi Y, Nandakumar S, Choi S.-O, Lee JW, Kim Y-C, Posey JE, Sable SB, Prausnitz MR. Bacillus Calmette-Guerin vaccination using a microneedle patch. Vaccine 2011 Mar 21; 29 (14): 2626–2636.

Kvasnovsky CL, Cegielski JP, Erasmus R, Siwisa NO, Thomas K, Van Der Walt ML. Extensively drug-resistant TB in Eastern Cape, South Africa: high mortality in HIV negative and HIV positive patients. JAIDS 2011 Feb 4. [Epub ahead of print.]

Manangan LP, Salibay CJ, Wallace RW, Kammerer S, Pratt R, McAllister L, Robison V. Tuberculosis among persons born in the Philippines and living in the United States, 2000–2007. American Journal of Public Health 2011 January; 101(1): 101–111.

Marks SM, Magee E, Robison V. Patients diagnosed with tuberculosis at death or who died during therapy: association with the human immunodeficiency virus. Int J Tuberc Lung Dis 2011 Apr; 15(4): 465–70.

Mitruka K, Oeltmann JE, Ijaz K, Haddad MB. Tuberculosis outbreak investigations in the United States, 2002–2008. Emerg Infect Dis [serial on the Internet]. 2011 Mar.

Moonan PK, Quitugua TN, Pogoda JM, Woo G, Drewyer GB, Sahbazian B, Dunbar D, Jost KC Jr, Wallace C, Weis SE. Does directly observed therapy (DOT) reduce drug- resistant tuberculosis? BMC Public Health 2011; 11(1):19.

Perri BR, Proops D, Moonan PK, Munsiff SS, Kreiswirth BN, Goranson C, Ahuja SD. Mycobacterium tuberculosis cluster with developing drug resistance, New York, New York, USA, 2003-2009. Emerg Infect Dis 2011 Mar; 17(3): 372–8.

Podewils L J, Holtz T, Riekstina V, Skripconoka V, Zarovska E, Kirvelaite G, Kreigere E, Leimane V. Impact of malnutrition on clinical presentation, clinical course, and mortality in MDR-TB patients. Epidemiology & Infection 2011 January; 139(1): 113–120.

Velasquez GE, Yagui M, Cegielski JP, Asencios L, Bayona J, Bonilla C, Jave HO, Yale G, Susrez C, Atwood S, Contreras CC, Shin SS. Targeted drug-resistance testing strategy for multidrug-resistant tuberculosis detection, Lima, Peru, 2005–2008. Emerg Infect Dis 2011 Mar; 17(3): 432–440.

Vinnard C, Winston CA, Wileyto EP, MacGregor RR, Bisson GP. Isoniazid-resistant tuberculous meningitis, United States, 1993–2005. Emerg Infect Dis 2011 Mar.

PERSONNEL NOTES

William (Terry) Avant, CDC/FSEB Senior Public Health Advisor (PHA) assigned to the State of Georgia TB control program, retired from service on February 28, 2011. In his capacity as the Senior PHA in the Georgia TB program, he provided technical assistance, guidance, and direction to state and local officials. In addition, he supervised two PHAs assigned to the Fulton and DeKalb TB clinics. Prior to joining CDC in 2009, Terry had served in the U.S. Army, retiring with the rank of Lieutenant Colonel. His military assignments included service as a community health nurse, infection control coordinator for the Carl Vinson Veterans Administration Medical Center in Dublin, Georgia, and infectious disease coordinator for the Georgia State Public Health South Central District. Terry looks forward to spending more time with his family.

Patricia Bessler, MPH, joined DTBE's Clinical Research Branch (CRB) on March 14 as an epidemiologist. Pat received her BA degree from the University of Texas and MPH in epidemiology and international health from the University of Alabama at Birmingham (UAB). Her graduate research was conducted in rural Jamaica, where she investigated characteristics affecting uptake of women's cancer screening services in public health clinics. After graduating, Pat joined UAB's Minority Health International Research and Training Program to manage data collected at

the program's numerous international field sites. In 2007, she accepted a position as a Research Scientist with the New York State Department of Health (NYSDOH). For the next 2 years she worked with the NYSDOH Bureau of Environmental and Occupational Epidemiology, where she participated in the design and implementation of the NYS Environmental Public Health Tracking System. In 2009 and 2010, Pat joined the NYSDOH Bureau of HIV/AIDS Epidemiology as a member of the Laboratory Operations team, managing the 1 million+ laboratory records received by the state every year.

Lorna Bozeman, MS, Team Leader of the Data Management Team in DTBE's Clinical Research Branch, has been named Preceptor of the Year by Georgia State University's College of Health & Human Sciences in the Institute of Public Health for her contribution to the student internship program. The College of Health & Human Sciences recognized Lorna at its annual Honors Day Ceremony at Georgia State University. Congratulations, Lorna!

Liza Bronner, MPH, a graduate of Emory University's Rollins School of Public Health Global Epidemiology Program, has joined the International Research and Program Branch (IRPB). Liza will be working as a Guest Researcher / Senior Research Associate, assisting with operational research studies on TB that are being conducted in collaboration with the National Department of Health and the Medical Research Council in South Africa.

Before joining DTBE, Liza was a laboratory assistant with the Emory Vaccine Center in Dr. Eric Hunter's HIV vaccine research laboratory, where she was responsible for designing and developing scientific experimental designs and training and supervising laboratory staff. She performed laboratory assays to establish phylogenic linkages of HIV in a large sample of HIV-infected couples enrolled in studies in Rwanda and Zambia. In this capacity, Liza also served as the primary liaison between the Emory laboratory and the Rwanda Zambia HIV Research Group's (RZHRG) international field sites. In Kigali, Rwanda, Liza conducted research to evaluate discrepancies between HIV testing conducted at research laboratories and rapid results performed at local health laboratories. This information was used to inform and guide changes to the national HIV testing algorithms.

Liza's experience also includes work with the Bicol Clinic Foundation in the Philippines, where she was responsible for implementing a tuberculosis census aiming to establish the burden, availability of treatment programs, and community knowledge about TB. Her field work involved conducting interviews with local public health authorities and working with local medical clinics and affected communities in the Bicol region.

IRPB is very pleased to have Liza, as well as her expertise in global health and in biologic and epidemiological sciences, and her passion for TB and HIV research!

Richard (Dick) Brostrom, MD, MSPH, has joined DTBE as a Field Medical Officer in Honolulu, Hawaii. In addition to serving as the State TB Control Branch Chief, Dick is also providing clinical support to the U.S. jurisdictions in the Pacific Region. His hiring is especially important now that the Hawaii post has been amended to include additional responsibilities for the TB Control Programs for Chuuk State, the Marshall Islands, Ebeye, Pohnpei, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), Palau, Yap, Kosrae, and American Samoa.

Dick has extensive experience in TB control and other public health issues. He received his MSPH and MD degrees from the University of North Carolina and completed 2 years as a USPHS Medical Officer for the Indian Health Service (HIS) prior to his work in the Pacific. Before

joining CDC, he served as the Medical Director for the CNMI Division of Public Health.

In 2009, Dick was awarded a CDC Service Award for working to build local TB capacity in Chuuk State, FSM. He helped create a workable and successful plan, coordinated several funding agencies, and provided direct supervision for the treatment of 25 patients with multidrug-resistant TB. Also of note, he has been a leader in developing TB standards for the diabetic population. Currently, he is working with DTBE and the Francis J. Curry Center to develop the world's first guidelines for treating TB in patients with coexistent diabetes.

Dick has participated in several international program reviews for CDC, Secretariat of the Pacific Communities (SPC), and the World Health Organization (WHO). He was team lead in the WHO-sponsored evaluation of the National TB Program in Fiji. He also served as CDC team lead for the WHO-CDC evaluation of the Marshall Islands TB Control Program. Dick was also the NTCA team lead for the evaluation of TB care for refugees in Nepal. This evaluation, sponsored jointly by U.S. Department of State and CDC, was performed to protect the U.S. and other countries from unnecessary importation of TB for more than 120,000 Bhutanese refugees undergoing permanent resettlement to accepting countries around the world.

As part of a growing CDC interest in Pacific health issues, he represents a substantial agency commitment to advancing TB care for Hawaii and the entire Pacific region. We are very pleased to welcome Dick to DTBE!

Kevin Cain, MD, of the International Research and Programs Branch (IRPB) was selected as the Lead Scientist for the TB Research Branch in Kisumu, Kenya. The Branch will be responsible for three main research areas: TB vaccine trials, TB drug trials, and intensified TB case finding (ICF). Kevin will continue in his role as the Lead for the TB/HIV Team until mid-April 2011 and then transition to his new position. If all goes as planned, he will assume his post in Kisumu in June 2011. Although we are sorry to see Kevin leave his current position, we are very pleased that he will remain a member of IRPB and DTBE, and will be assuming an important position in Kisumu that represents a collaboration between IRPB, the Clinical Research Branch, and the Division of Global AIDS/CDC Kenya.

Kathryn Koski, MS, MPH, has been selected as the Associate Director for Management and Operations (ADMO) for DTBE. She was selected among a highly competitive group of 20 qualified applicants. She officially assumed this role on February 27.

Kathryn comes to DTBE with a wealth of experience in various CDC programs. Since 2007, she had served as Deputy Chief, Health Services Research and Evaluation Branch, Division of STD Prevention (DSTDP). From July 2006 until February 2007, she was Acting Deputy Chief, Program and Training Branch, DSTDP. Between September 2005 and July 2006, she served on a temporary assignment as Acting Chief, Financial and Administrative Services Office, Office of the Director, NCHHSTP. From 2001 until 2005, she served as a Public Health Advisor (PHA) on the Medical Education and Evaluation Team, Training and Health Communication Branch, DSTD. Prior to that, she worked in DTBE for several years. During 2000–2001, she was the Project Manager for the Tuberculosis Information Management System (TIMS) in DTBE. She served as a TB PHA with the State of Florida TB Program during 1999–2000, and before that served with the Los Angeles County TB Program, 1997–1999. She also served as Acting Deputy Chief, Laboratory Reference and Research Branch, DSTDP, and Acting PMO, HIV Retrovirology Branch, Division of HIV/AIDS Prevention (DHAP).

Kathryn earned a BS degree from the University of Michigan, Ann Arbor, Michigan, an MS degree in Education from the University of Wisconsin, La

Crosse, Wisconsin, and an MPH degree from Emory University, Atlanta, Georgia. She started her career with CDC in 1991 as a PHA with DSTDP, and has served with distinction as PHA in Los Angeles County's STD Program, and the Miami-Dade County STD Program.

Eugene McCray, MD, returned to DTBE on February 7 and resumed his duties (full-time) as Chief of the International Research and Programs Branch. He continues to work closely with Dr. Allyn Nakashima, who is replacing Eugene as the Acting CDC Global TB Coordinator, and with the CDC Global TB Working Group on the development of the CDC Global TB Strategy. Eugene thanks Kevin Cain for the outstanding leadership he provided for IRPB during his absence, and also thanks his staff and many colleagues in DTBE for their excellent support and collaboration with Kevin during this time.

Nicole Richardson-Smith, MA, joined the Communications, Education, and Behavioral Studies Branch (CEBSB) as a health communication specialist on March 28, 2011. Nicole served as a Health Communication Specialist in the Influenza Division, National Center for Immunization and Respiratory Diseases (NCIRD), CDC, during 2005–2011. During the 2009 H1N1 Influenza Pandemic, Nicole served on the Technical Specialty Unit Clearance Team, which was responsible for the development of key messages, H1N1 print materials, and content for the H1N1 Web site. For her participation in the 2009 H1N1 pandemic response, she received an NCIRD award for Excellence in Communications: Communication Strategy team and an NCEZID honor award certificate for excellence in leveraging strategic partnerships to promote public health.

Nicole received her BA in Journalism and English from Emory University in 2003, and an MA degree in Mass Communication and Journalism from the University of Georgia in 2005. She is currently pursuing a PhD in Public Health with a concentration in Community Health Education and Promotion at Walden University.

Kim Seechuk, DTBE/FSEB Public Health Advisor (PHA) in Washington, DC, has been selected jointly by the Division of STD Prevention/Program and Training Branch (PTB) and DTBE/FSEB as the Senior PHA for the combined STD/TB program in Washington, DC, effective February 14, 2011.

Kim brings extensive TB and STD experience to her new position. Starting in 2007, she served as the Bureau Chief and Senior PHA for the District's Tuberculosis Control Program. In that position, she was responsible for all programmatic, fiscal, and administrative aspects of the District's multifaceted TB efforts and spearheaded efforts to integrate the program with the HIV/AIDS, hepatitis, and STD programs. Prior to that assignment, she worked in DSTD's Program and Training Branch for 10 years in various capacities, including serving as acting Branch Chief, Deputy Branch Chief, and Program Consultant. In those positions, Kim oversaw the management of over 200 field staff, conducted program assessments, and prepared funding announcements and various interagency agreements.

David A. Wilson has joined the Data Management and Statistics Branch (DMSB) as of February 14. Dave is a Public Health Analyst who has served in the DTBE Laboratory Branch since May 2003. From 2001 to 2003, Dave worked as a Grants Management Specialist in CDC's Procurement and Grants Office (PGO). In his new position, he will assume acting Deputy Chief duties for DMSB and for the Global Laboratory Activity.

Dave has had extensive experience in instructing military and civilian personnel as well as in managing, evaluating, and coordinating large, complex programs. In coordination with the NCHHSTP Office of Informatics, Dave will lead DMSB's administrative support and related

budget-planning activities related to the imminent CITS-to-CIMS transition in the Division. His office is located in the DMSB area. Welcome, Dave!

CALENDAR OF EVENTS

April 11–15, 2011
60th Annual EIS Conference
Atlanta, GA
Centers for Disease Control & Prevention (CDC)

April 13–16, 2011
The Denver TB Course
Denver, CO
National Jewish Health

April 25–30, 2011
Influencing, Networking, and Collaboration
Singapore
IUATLD
E-mail: imdp@theunion.org

April 27, 2011
2011: What Do We Know About LTBI?
Sacramento, CA
Curry International Tuberculosis Center

April 28–29, 2011
California TB Controllers Association (CTCA) 45th Annual Conference
Sacramento, CA
California Tuberculosis Controllers Association (CTCA)

May 2–14, 2011
Implementing the Stop TB Strategy: Skills for managers and consultants
Sondalo, North Italy
WHO
E-mail: lia.dambrosio@fsm.it

May 13–14, 2011
29th Semi-Annual TB Trials Consortium Meeting
Denver, CO
Division of TB Elimination (DTBE)

May 13–18, 2011
2011 ATS International Conference
Denver, CO
American Thoracic Society (ATS)

June 7–8, 2011
Meeting of the Advisory Council for the Elimination of TB (ACET)
Atlanta, GA
Division of TB Elimination (DTBE)

June 7–14, 2011
Overcoming Barriers to TB Control: the Role of Advocacy, Communication, and Social Mobilization (ACSM)
Sondalo, North Italy
WHO
E-mail: lia.dambrosio@fsm.it

June 12–16, 2011
2011 CSTE Annual Conference
Pittsburgh, PA
Council of State and Territorial Epidemiologists (CSTE)

June 13–15, 2011
7th National Conference on Laboratory Aspects of Tuberculosis
Atlanta, GA
Association of Public Health Laboratories (APHL)

June 15–17, 2011
2011 National TB Conference
Atlanta, GA
National Tuberculosis Controllers Association (NTCA)